

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 1, 2016/2017

**MID2003 – INTERFACE MODELLING**

(All sections / Groups)

18 OCTOBER 2016  
9.00 AM - 11.00 AM  
( 2 Hours )

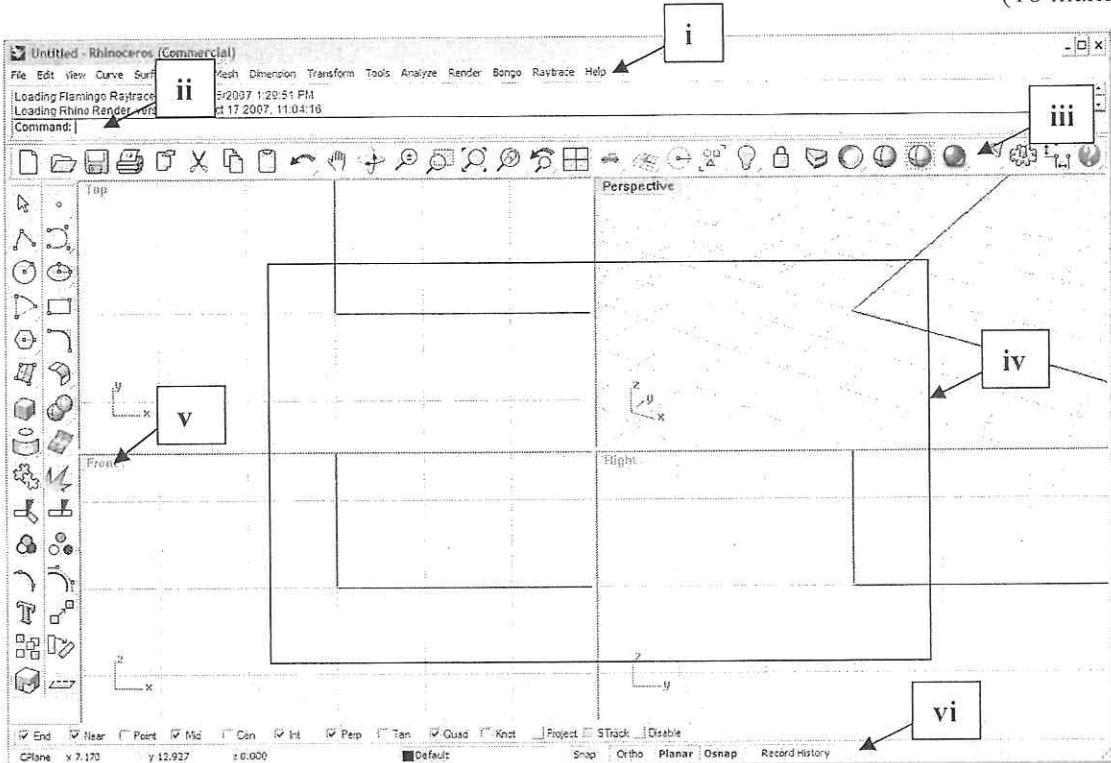
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### INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 4 pages with 5 Questions only.
2. Answer **FOUR** out of **FIVE** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please print all your answers in the Answer Booklet provided.

1. A) Name and describe each of these working interfaces in Rhino 5

(18 marks)



B) Rhino5 can create, edit, analyze, document, render, animate, and translate NURBS\* curves, surfaces, and solids, point clouds, and polygon meshes. There are no limits on complexity, degree, or size beyond those of your hardware.

Discuss 3 special features in Rhino5 (7 marks)

(Total 25 marks)

2. A) Discuss what is NURBS modeling and the usage of it.

(20 marks)

B) Designer may create model from using primitives under option solid in Rhino5. What are those FIVE primitives? (5marks)

(Total 25 marks)

Continued...

3. A) Discuss and explain THREE industries which applying Brazil in RHINO5 for their 3D visualization. Give THREE examples for each industry. (15 marks)

B) In order to render, BRAZIL has a feature call Global Illumination. Discuss this rendering feature. (10 marks)

(Total 25 marks)

4. A) Fill in the blank in these statements;

i. Brazil's render engine uses the \_\_\_\_\_ method (as opposed to scanline or hardware renderers). This engine has the advantage of \_\_\_\_\_ the way \_\_\_\_\_ actually behave; although this engine is not limited to \_\_\_\_\_ solutions.

ii. Rhino supports \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and rectangular light objects with simple properties such as color, hotspot, and shadow casting.

iii. \_\_\_\_\_ simulates the imperfect focusing properties of physical \_\_\_\_\_ such as biological eyes and cameras. This feature adds a measure of realism to a rendering by blurring \_\_\_\_\_ areas. It can also be used to \_\_\_\_\_ areas of the scene such as distant surroundings.

iv. Brazil supports both \_\_\_\_\_ and procedural textures. Procedural textures, on the other hand, are defined by a \_\_\_\_\_. Procedural textures do not suffer from \_\_\_\_\_ or \_\_\_\_\_ problems, and it is easy to change their behavior.

(16 marks)

B) Brazil's **advanced raytrace engine** simulates a wide range of effects. Discuss THREE of the effects.

(9 marks)

(Total 25 marks)

Continued...

5. A) Discuss FIVE rendering features use by KEYSHOT.

(10 marks)

B) Describe step by step on how rendering in KEYSHOT works.

(15 marks)

(Total 25 marks)

End of Paper